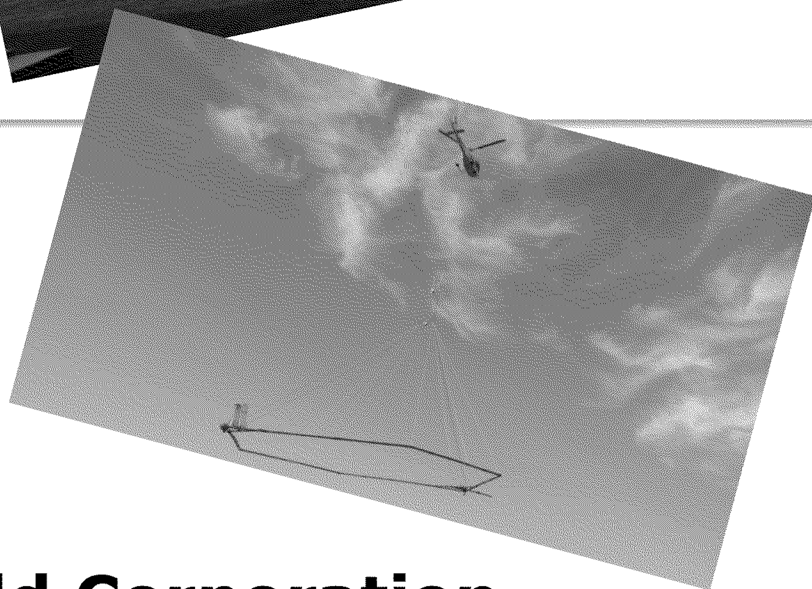

Sunnyside Gold Corporation

Collection of Airborne Electromagnetic and Total Field Magnetic data for the development of a 3D Framework over the Mayflower Tailings Silverton, CO

Native American Helicopters, LLC

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1. Introduction

Native American Helicopters, LLC ("NAH") is pleased to submit this proposal to the Sunnyside Gold Corporation- *Collection of Airborne Electromagnetic (AEM) and Total Field Magnetic data for the development of a 3D Framework over the Mayflower Tailings Silverton, CO*. Studies conducted by the U.S. Geological Survey (USGS) (Church and others, 2007) have indicated the presence of geophysically mappable features related to the hydrology and geology of the area. These hydrogeological features will be key in assessing the impacts and any potential remediation of the area.

The current study is designed to examine the following features:

1. Variations in the paleofluvial structure of the Animas River.
2. Understand the distribution of conductive fluids and their relationship to the tailings.
3. Lithologic character of the valley fill; and
4. The distribution of the tailings within the valley.

The previous USGS work utilized an early design of AEM systems that functioned in the frequency domain. The system was plagued with drift and bias that need extensive corrections before numerical inversion could occur (Church and others, 2007). The time-domain AEM system is better suited at imaging through conductive materials and imaging deeper than the frequency-domain system. Traditionally, the time-domain systems could not image the near surface due to frequency and bandwidth limitations. With the development of the short turn-off SkyTEM 301 (3 μsec) system, near-surface layers can now be resolved and will still maintain an investigation depth ~ 120 meters.

It is our understanding that:

- The Sunnyside Gold Corporation will provide a Contract Representative to assist in the QA/QC and logistical coordination

Please see Section 2 for a more thorough description of the duties and responsibilities of each company.

NAH utilizes the SkyTEM technology for data acquisition. SkyTEM technology benefits to the mapping objectives:

- As the only system capable of operating in dual transmitter modes, SkyTEM can discriminate between weak geological contrasts in the upper layers concurrently with those at depth.

- Low moment (LM) mode with low current, high base frequency and fast turn-off provides early -time data and high spatial sampling for shallow imaging.
- High moment (HM) mode with high current and low base frequency provides high quality late-time data for deep imaging.

The ability to map in dual mode makes it possible to map at depth as well as the near surface. It also will assist in discriminating more resistive layers.

- The extremely high signal to noise ratio contributes significantly to the delivery of high resolution data and increases confidence in determining overburden thickness and modeling of the deeper geology.
- Patented receiver technology eliminates signal drift and, combined with a one-time calibration procedure, data leveling and post flight corrections are minimized or eliminated. This also eliminates the need to conduct high altitude calibration/verification flights at regular intervals during each sortie. In addition to saving valuable survey time, this is of particular benefit when low ceiling or inclement weather could restrict survey productivity. As a result, preliminary data and simple inversion can be produced shortly after acquisition throughout the survey.
- Fast turn-off time and early time data. Early time data are important for resolving near surface layers as well as more resistive layers. SkyTEM's transmitter current is turned off within 3 μsec and the first usable time gate opens at about 5 μsec after the end of turn off). This allows for the collection of very clean and very accurate near surface data.
- All sensors, including the magnetometer, are mounted on the rigid carrier frame and flown at low altitude, ensuring that all measurements are recorded as close to the ground as is achievable from an airborne geophysical platform. This allows for increased accuracy and the collection of the highest lateral and horizontal resolution obtainable.
- The attitude of the SkyTEM system is measured directly with two inclinometers. Altitude is measured directly with the laser altimeters.
- No operator is required in the helicopter. This reduces weight and fuel consumption and serves to reduce risk and cost as the pilot is the only person aboard the aircraft during survey flying.
- The system is durable and can fly in challenging weather conditions.

The SkyTEM 301 system has been used to complete several engineering projects within North America for clients in the engineering, environmental, and resource exploration sectors. NAH utilizes an experienced staff of geophysicists, geologists, remote sensing specialists, and field survey operators to conduct airborne surveys. We support our clients and employees with a commitment to high standards in safety, quality and client service.

NAH will be partnering with Exploration Resources International (XRI) for technical expertise in the operation and use of AEM technology for hydrogeological mapping and construction of 3D hydrogeological frameworks. XRI specializes in geophysics and

hydrogeology, with a focus of expertise on aquifer mapping and hydrogeologic framework development in a variety of terrains. The information we develop from XRI 's surveys is directly used for water resources management. Often, XRI's scientific productions are used for improving the understanding groundw ater and surface water interactions, establishing groundwater management plans, managed aquifer recharge planning, municipal water supply development, and understanding groundwater quality.

XRI's staff of experienced scientists develop and appl y techniques to supply subsurface information from geophysical surveys and traditional hydrogeologic methods. Our projects often lead to new developments in the field of hydrogeophysics, much of which is presented in scientific publications.

1.1. Validity

This proposal is valid until July 31, 2015 and needs to occur immediately following the planned work in CA that NAH is engaged in, with an estimated completion date of July 20, 2015.

1.2. Contacts

The primary contact person from NAH for this proposal will be:

B.J. Crocker
Chief Executive Officer
Native American Helicopters
nahelicopters@gmail.com
4300 Rogers Ave STE 20 #100
Ft Smith, AR 72903
(918)-720-6802 (c)

The primary Technical Contact will be:

Jared D. Abraham
Senior Research Geophysicist
XRI Geophysics, LLC
14828 Unit 3B, W 6th Ave
Golden, CO 80401
(303)-263-8318 (c)

The primary contact person from Sunnyside Gold Corporation for this proposal will be:

Pat Maley
Director, Environment
Sunnyside Gold Corporation
5075 South Syracuse Street, Suite 800
Denver, CO 80237
(303)-802-1449 (o)
(775)-240-1288 (c)

1.3 Cited Publications

Church, S.E., von Guerard, Paul, and Finger, S.E., eds., 2007, Integrated investigations of environmental effects of historical mining in the Animas River watershed, San Juan County, Colorado: U.S. Geological Survey Professional Paper 1651, 1,096 p. plus CD-ROM. [In two volumes.]

2. Services, Pricing, Payments and Insurance

Note: Notwithstanding the delegation of the responsibilities of the Services noted below, it is anticipated that either party will provide suggestions, provide guidance and generally assist the other when it is deemed to be in the best interest of a successful project and/or is required by law.

2.1. Services to be provided by NAH:

1. Preparation of flight line maps.
2. Supply all personnel.
3. All accommodations and meals for all crew.
4. Supply of all technical equipment and spares.
5. Supply of helicopter, fuel truck, and all required fuel.
6. Processing, quality control, and delivery of preliminary products on a daily basis.
7. Inversion of the AEM d ata for development of the 3D framework of the survey area.
8. Provide interpretations of the AEM inversions that integrate all available and useable data.
9. Production of final deliverables.

2.2. Services to be provided by Sunnyside Gold Corporation:

1. Provide applicable data on the characteristics of the tailings and hydrogeological conditions of the area to be integrated into the 3D hydrogeological framework
2. Provide a Contract Representative to QA/QC the data and to provide logistical coordination with the Sunnyside Gold Corporation.
3. Warrant that it has the right to collect geophysical data over the survey area.
4. Obtain all necessary permits and approvals of any stakeholders required, including but not limited to local authorities.
5. Assist with notification of all local residents in the survey area.
6. Assist with logistical issues related to the survey area.

Pricing Page Redacted.

3. Survey Areas

3.1. Outline of the survey areas

The survey will be conducted within the area of Silverton, CO figure 1.

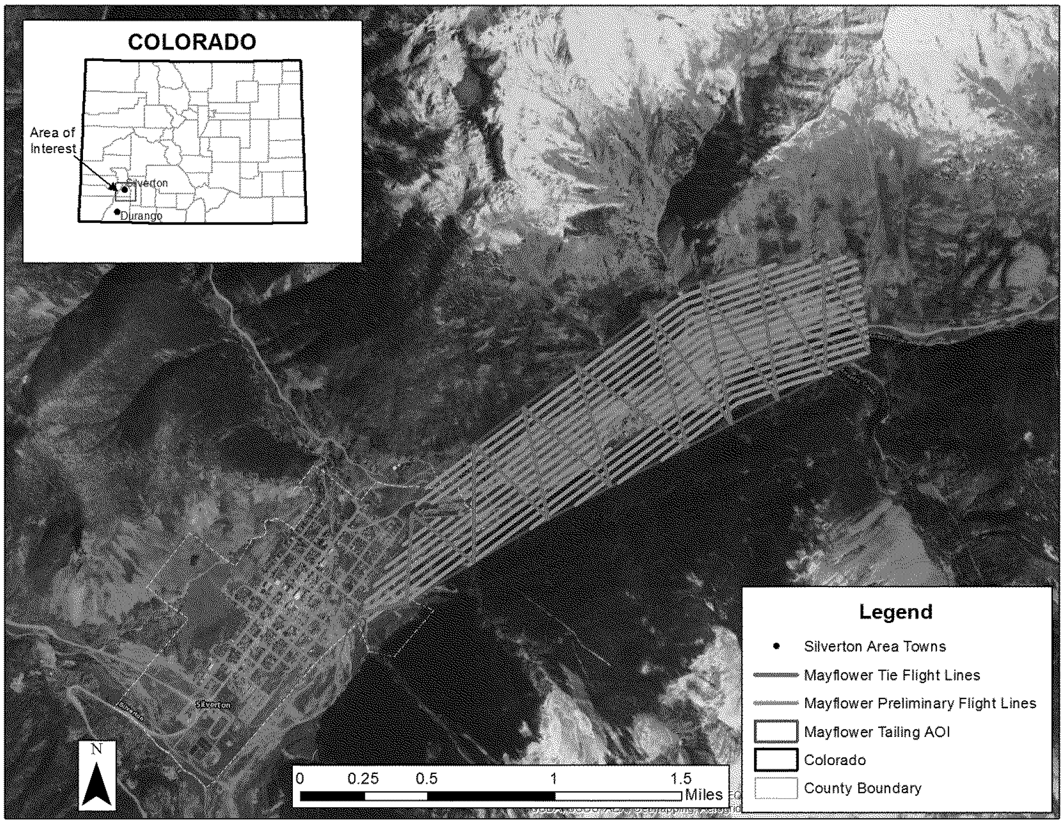
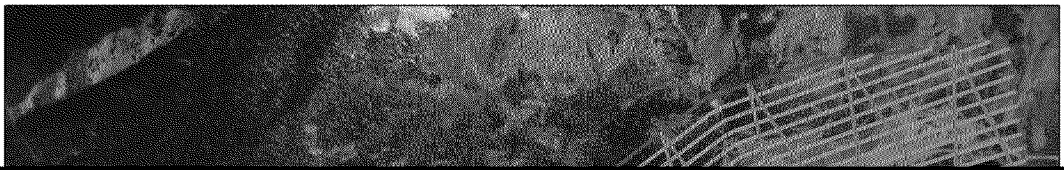


Figure 1: Location of the survey area near Silverton, CO.



[redacted]

Figure 2: Approximate flight lines for the Mayflower Tailings Survey.

4. Survey Scheduling

Mobilization to Silverton will begin at the completion of NAH work in California and is anticipated to be approximately on July 20th, 2015. Sunnyside Gold Corporation will have 5 days notice of the beginning of the survey date. This is based on the assumption that the contract award and negotiations are concluded in a timely fashion and weather or factors beyond NAH's control do not significantly affect the start date and survey operations. NAH will deliver the final report and products within 6 weeks of completion of the collection of data.

Preliminary products may be prepared progressively in the field during survey flying.

All phases of the survey schedule will be coordinated with the Sunnyside Gold Corporation.

Mobilization date	Late July 2015
Est. daily production	~50 line kilometers
Est. no of survey days	~1
Est. last day of flying	Will depend on weather conditions
Est. delivery date finals	Preliminary reports can be delivered progressively in the field. Finals 6 weeks from collection of data.

Project workflow

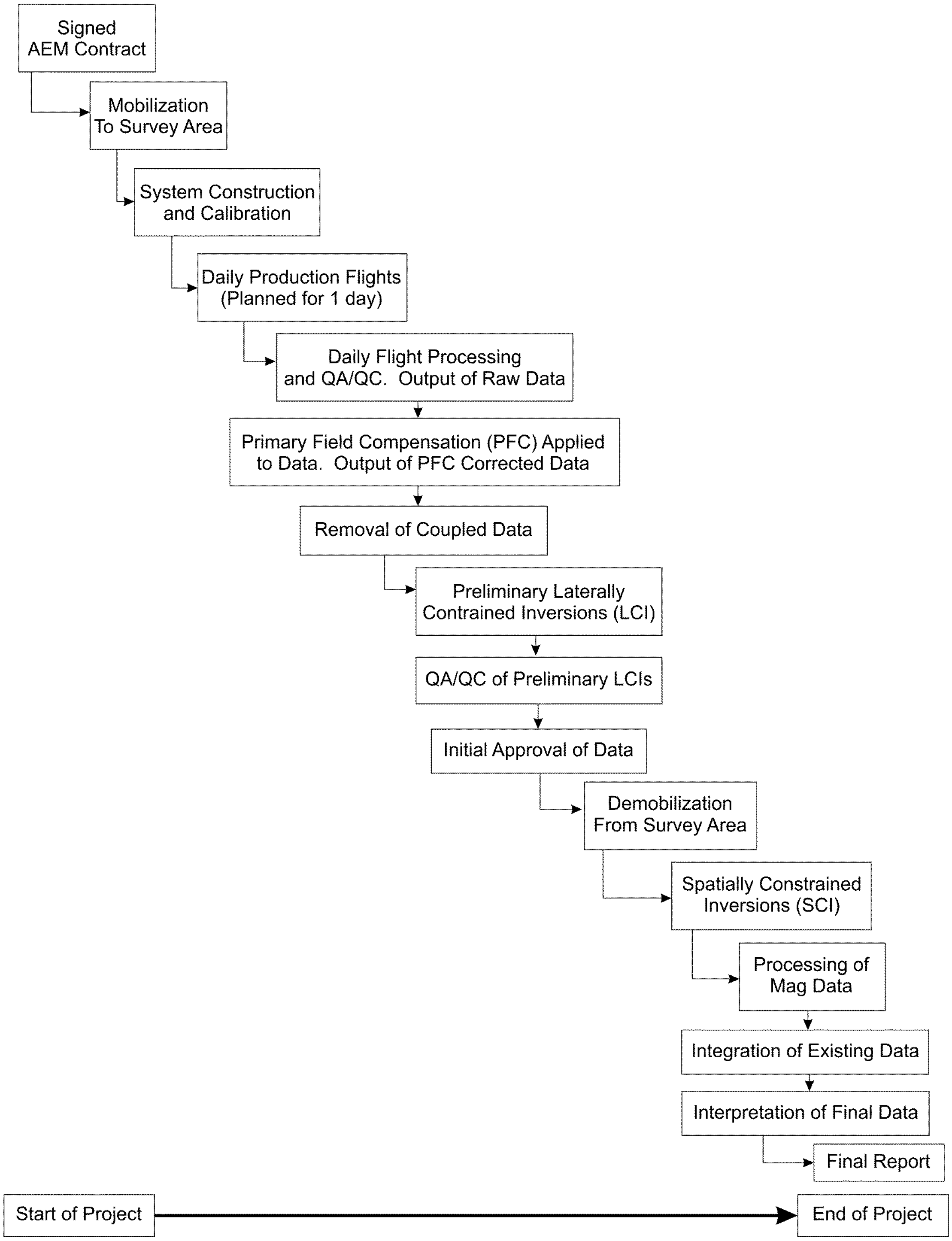


Figure 3: Project workflow.

5. Flight Specifications

Flight line specifications are outlined below (exclusions include any obstacle avoidance or other safety issue as judged by the pilot).

Maintain flight line X,Y tolerances to within ± 10 meters. Deviations from the flight line will not be > 10 meters for a distance > 500 meters.

Altitudes will be maintained at approximately 30 meters ± 15m over the highest obstacle. Deviations from the planned altitudes will not be > ± 15 for a distance > 1,200 meters.

With the difficult terrain of the Silverton area, the final survey layout will be more determined on the obstacle avoidance and terrain then specific flight lines.

6. Aircraft and Flight Specifications

Helicopter provider	NA Helicopters
Helicopter type	Astar 350FX2 Ecureuil (Squirrel)
Min/max operational temperature	-30°C to 45°C
Max cruise air speed without sling load	245 kph
Avg flight duration while survey flying	~2.5 hours
Avg production per flight	~120 line kilometers
Flights per day	2
Number of pilots	1
Co-pilot/operator	Not needed
Technician	1
Fuel	Fuel truck
Fuel consumption	~180 l/h

7. Specifications of the SkyTEM301 System and Auxiliary Equipment

7.1. General

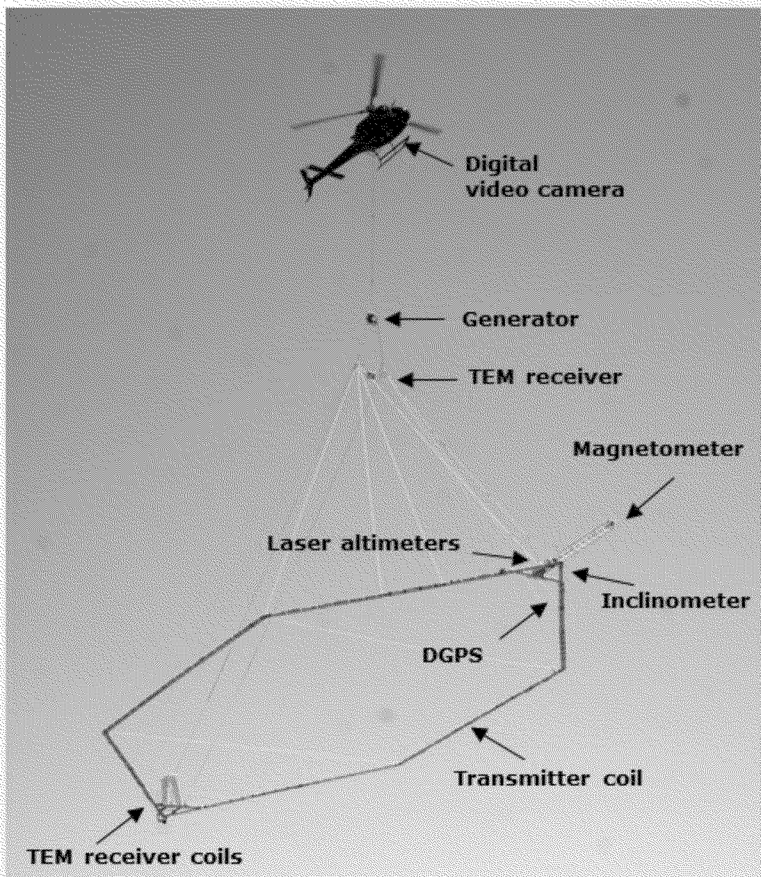


Figure 4: Photo of the AEM instrumentation mounted on the rigid carrier frame .

Total weight	500 kg
Length carrier frame	28 m (excluding the stinger for the magnetometer)
Width carrier frame	16.5 m
Length tow cable	35 m
Carrier frame	Rigid aerodynamic composite
Nominal terrain clearance	30 m above any obstacles or hazards *)
Production speed on survey lines	80-100 km/hr (optional fast flying up to 120 km/hr)
Max airspeed ferry	120 km/hr
Max wind speed	10 m/s – if gusty wind or demanding terrain conditions, the max wind will be reduced
Precipitation	Light precipitation can be tolerated
Operational temperature	-30°C to +45°C

*) Dependent on terrain, weather conditions and pilot discretion. The EM carrier frame can be adjusted so that the helicopter speed can be reduced to suit terrain conditions and the pilot's ability to drape fly.

7.2. Transmitter

Electromagnetic system –Dual-Moment, Time-Domain Electromagnetic (TDEM) System.

Parameter	LM mode	HM mode
No of transmitter turns	1	1
Transmitter area per turn	341 m^2	341 m^2
Transmitter current	~6 Amp	~95 Amp *)
Transmitter dipole	Vertical	Vertical
Peak moment	~2,000 NIA	~32,000 NIA
On time	800 μs	2500 μs
Off time	715 μs	4167 ms **)
Rep. frequency	330 Hz	75 Hz
Power supply	External DC generator. Part of the sling load. Placed at an appropriate distance from the TDEM receiver and transmitter system to avoid any noise and data bias effects.	

*) The current is dependent on the outdoor temperature. The current will be reduced as temperatures increase.

**) The system has customizable on times and repetition frequencies for both LM and HM modes. These parameters can be modified while the survey is taking place.

7.3. Waveform

The figures below show the normalized waveforms for the low and high moment transmitter modes measured on the ground. Only the positive waveform is shown as the positive and negative waveforms are fully symmetrical . Note the significant difference in time scale between the Ramp Up (ms) and Ramp Down (μs) figure panels.

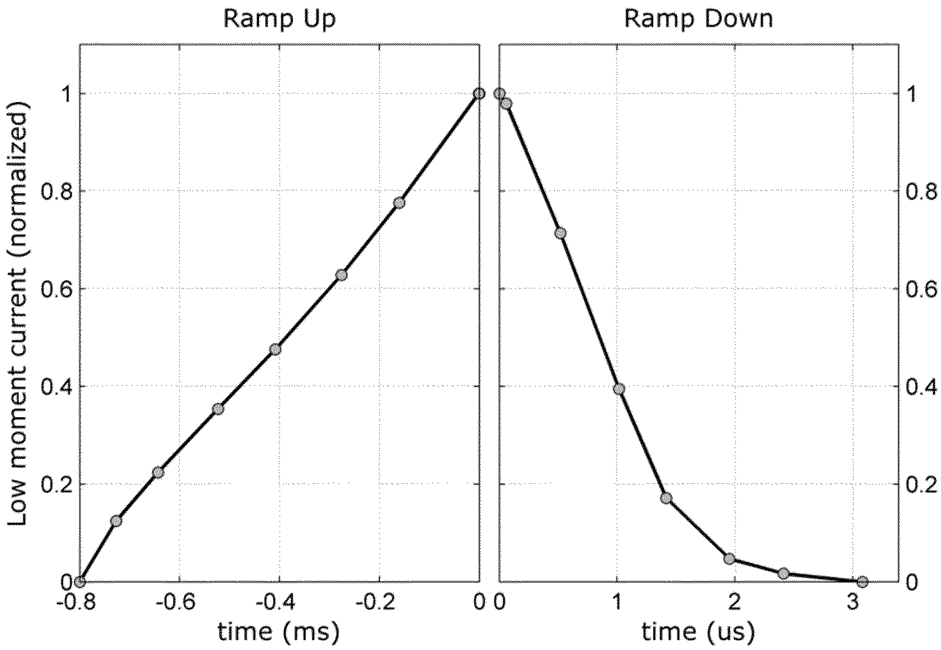


Figure 5: The digitized waveform for the low moment. Left axis is the normalized current (Ampere), bottom axis is time in ms for ramp-up and μs for ramp-down.

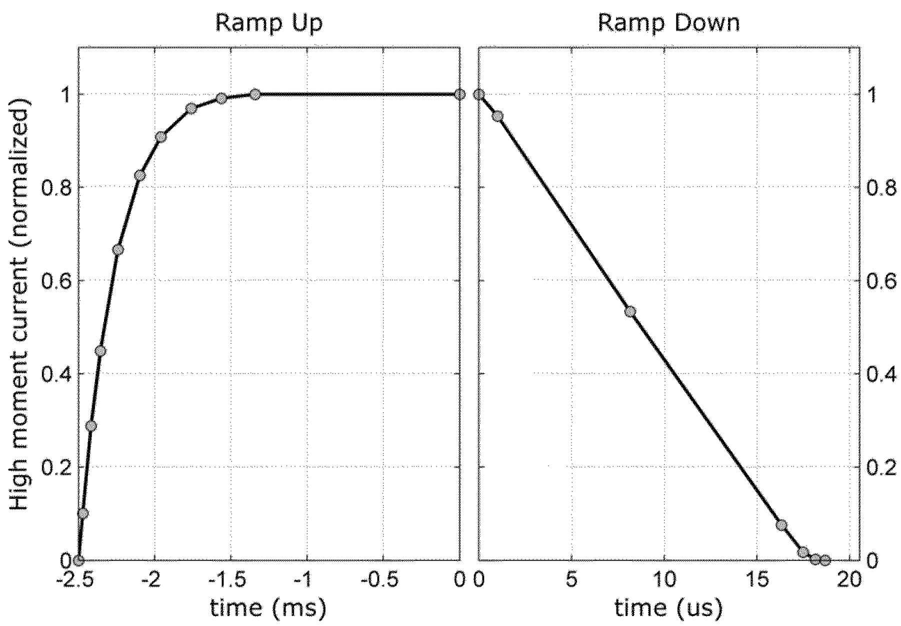


Figure 6: The digitized waveform for the high mo ment. Left axis is the normalized current (Ampere), bottom axis is time in ms for ramp up and μs for ramp down.

The full measured wave form will be supplied for both high and low moment in the final data delivery.

TDEM receiver

Receiver coils	Shielded, optimally damped, multi-turn air-cored loops, sensitive to dB/dt
Z coil frequency	650 kHz
X coil frequency	250 kHz
Effective area of Z coil	105 m^2
Effective area of X coil	115 m^2
Receiver bandwidth	500 kHz (customizable)
Operational temperature	-35°C to +50°C

TDEM gate times

The low moment and high moment signals are recorded using time gate averaging. The gate center times and gate averaging widths are shown in the tables below. The gate center times refer to the end of the current ramp down for both moments. The high moment current ramp down is essentially linear and has a duration of approximately 18 µs. The shape of the low moment current ramp down is more complicated. We define its duration to be that of the equivalent linear ramp down having the same area. The equivalent linear ramp down has a duration of approximately 2 µs.

Low Moment		
Window	**Gate Center (µs)**	**Gate Width (µs)**
1	4.2	1.6
2	6.2	1.6
3	8.2	1.6
4	10.2	1.6
5	12.7	2.6
6	16.2	3.6
7	20.7	4.6
8	26.2	5.6
9	33.2	7.6
10	42.2	9.6
11	53.7	12.6

Low Moment		
Window	Gate Center (µs)	Gate Width (µs)
12	68.2	15.6
13	86.2	19.6
14	108.7	24.6
15	136.7	30.6
16	172.2	39.6
17	217.7	50.6
18	274.7	62.6
19	346.7	80.6

High Moment		
Window	Gate Center (µs)	Gate Width (µs)
1	44.2	9.6
2	55.7	12.6
3	70.2	15.6
4	88.2	19.6
5	110.7	24.6
6	138.7	30.6
7	174.2	39.6
8	219.7	50.6
9	276.7	62.6
10	348.7	80.6
11	439.7	100.6
12	553.7	126.6
13	697.7	160.6
14	879.2	201.6
15	1107.7	254.6

High Moment		
Window	Gate Center (µs)	Gate Width (µs)
16	1396.2	321.6
17	1760.2	405.6
18	2218.7	510.6
19	2796.7	644.6
20	3525.7	812.6

The above gate time tables relate to the specific repetition rates shown in thetransmitter section. Repetition rates and gate timings are fully customizable and canbe readily adapted to specific customer requirements.

7.4. Airborne magnetometer

Number	1
Type	Geometrics Caesium Vapour type 822A, Total intensity magnetometer
Sampling interval	Defined by the TDEM HM repetition frequency
Magnetometer values	Down sampled to 10 Hz data
Error envelope	Not exceeding ±0.2 nT for more than 10% of any flight line
Synchronization	With TDM system to measure in HM off times
Operating principle	Self-oscillating split-beam Caesium Vapour (non-radioactive)
Operating range	20,000 to 100,000 nT
Operating zones	The Earth's field vector should be at an angle greater than 6° from the sensor's equator and greater than 6° away from the sensor's long axis. Automatic hemisphere switching
Sensitivity	<0.0005 nT/√Hz rms. Typically 0.002 nT P-P at a 0.1 second sample rate (90% of all readings falling within the P-P envelope) using 822A Super-counter
Heading error	< 2 nT

Absolute accuracy	Better than 3 nT throughout range	
Output	Cycle of Larmor frequency = 3.498572 Hz/nT	
Mechanical	Sensor	2.375” (60.32 mm) dia., 6.25” (158.75 mm) long, 12 oz (339 g) without cable
	Sensor electronics	2.5” (63.5 mm) dia., 11” (279.4 mm) long, 24 oz (680 g)
Operating temperature	-35°C to +50°C	
Altitude	Up to 9,000 m	
Counter	Kroum KMAG4	
Synchronization	The counter is synchronized with the TDEM system. The system only records magnetic data in the TDEM off time	
Power	24 to 32 VDC, 0.75 Amp at turn-on and 0.5 Amp thereafter	

7.5. Ground base magnetometer

Number	1 or 2	
Recording	Continuously	
Location	Within 100 km of all survey points	
Magnetic base station	One or two, of either type GEM GSM 19 Overhauser magnetometer and/or GEM GSM 19 Proton magnetometer with a sampling interval of 1 second and a sensitivity of better than 0.3 nT located so that sources of man-made noise such as vehicular traffic do not exceed 1 nT	
Digital recordings	Digital data include the date, an absolute value of the magnetometer and GPS time with accurate synchronization to the airborne data acquisition system	
Specifications	**Overhauser GSM-19W**	**Proton GSM-19TW**

Performance	Sensitivity: 0.022 nT / √Hz Resolution: 0.01 nT Absolute Accuracy: ± 0.1 nT Range: 20,000 to 120,000 nT Gradient Tolerance: < 10,000 nT/m Samples at: 60+, 5, 3, 2, 1, 0.5, 0.2 sec Operating Temperature: -40°C to +50°C	Sensitivity: 0.15 nT @ 1 reading per sec. 0.05 nT @ 1 reading every 4 sec. Resolution: 0.01 nT Absolute Accuracy: +/- 0.2 nT @ 1 Hz Dynamic Range: 20,000 to 120,000 nT Gradient Tolerance: over 7000 nT/m Samples at: 60+, 5, 4, 3, 2, 1, 0.5 sec Operating Temperature: -40°C to +50°C
Operating modes	Manual: Coordinates, time, date and reading stored automatically at minimum 3-second interval. Base Station: Time, date and reading stored at 1- to 60-second intervals. Remote Control: Optional remote control using RS-232 interface. Input / Output: RS-232 or analog (optional) output using 6-pin weatherproof connector.	Manual: coordinates, time, date and reading stored automatically at minimum 3-second interval. Base Station: time, date and reading stored at 3- to 60-second intervals. Remote Control: optional remote control using RS-232 interface. Input / Output: RS-232 or analog (optional) output using 6-pin weatherproof connector.
Dimensions	Console: 223 x 69 x 240 mm Sensor: 175 x 75 mm diameter cylinder	Console: 223 x 69 x 240 mm Sensor: 170 x 71 mm diameter cylinder
Weights	Console with belt: 2.1 kg Sensor and staff assembly: 1.0 kg	Console: 2.1 kg Sensor and staff assembly: 2.2 kg

7.6. Laser altimeter

The system is equi pped with two devices for backup. Data is guaranteed to be supplied from one device and will in most cases be supplied from both devices. In the case that one device fails it will be replaced as fast as possible.

Number of units installed	2
Model	MDL ACE IM3R or IM3HR type 150 or 300

Wavelength	905 nm
Type	Digitized in the unit, filtered and time stamped in the unit
Reflector range	0.5 – 150 m or 2-300 m (passive reflector)
Time lag	Does not exist
Class	1 (comply with regulations with respect to the safe use of laser equipment)
Accuracy	20 cm
Resolution	10 cm
Rep. rate	Up to 1000 Hz
Output recording rate	Between 10-75 Hz
Position	One on each side of the carrier frame
Operating temperature	-20°C (some units modified to -30°C to +60°C)
Weight	260 g

7.7. Video camera

Video data is considered as additional data.

Number of units installed	1
Synchronization and stamping	Synchronized by use of GPS and stamped with time and position
Position	Downward looking, placed in the helicopter
Weight	267 g
Input voltage	9-15 V
Power	7.2 Watts maximum
Lap time accuracy	0.1 sec
Foot print in 65 m altitude	~120 m
Data storage	SD card
Data format	Interlaced MPEG 4 AVI files
Frames	25 or 30 fps
Graphics	24-bit color plus 16 levels of alpha transparency
Resolution	DVD 720 x 576 at 25 frames per second

	PAL (default) or DVD 720 x 480 at 30 frames per second NTSC
Operating temperature	-10°C to +60°C

7.8. DGPS – Rover

The system is equipped with two devices for backup. Data is guaranteed to be supplied from one dev ice, and will in most cases be supplied from both devices. In the case that one device fails it will be replaced as fast as possible.

Number of units installed	2
Brand	Novatel
Model	OEMV-1, 14 GPS L1, 1 L-band, 2 SBAS
Antenna	Trimble Bullet III
Real time corrections	Real time SBAS
Coordinate system and datum	Lat_lon – WGS84 UTM – WGS84
Horizontal position accuracy	0.6 m (SBAS) 0.45 (DGPS post processing)
Data rate	20 Hz
Operating temperature	-40°C to +85°C

7.9. DGPS – base station

The system is equipp ed with two devices for backup. Data is guaranteed to be supplied from one device and will in most cases be supplied from both devices. In the case that one device fails it will be replaced as fast as possible.

Number of units installed	2
Brand	Novatel
Model	OEMV-1, 14 GPS L1, 1 L-band, 2 SBAS
Antenna	Trimble Bullet III
Real time corrections	Real time SBAS
Coordinate system and datum	Lat_lon – WGS84 UTM – WGS84
Horizontal position accuracy	0.6 m (SBAS)

	0.45 (DGPS post processing)
Data rate	1 Hz
Operating temperature	-40°C to +85°C

7.10. Inclination sensors

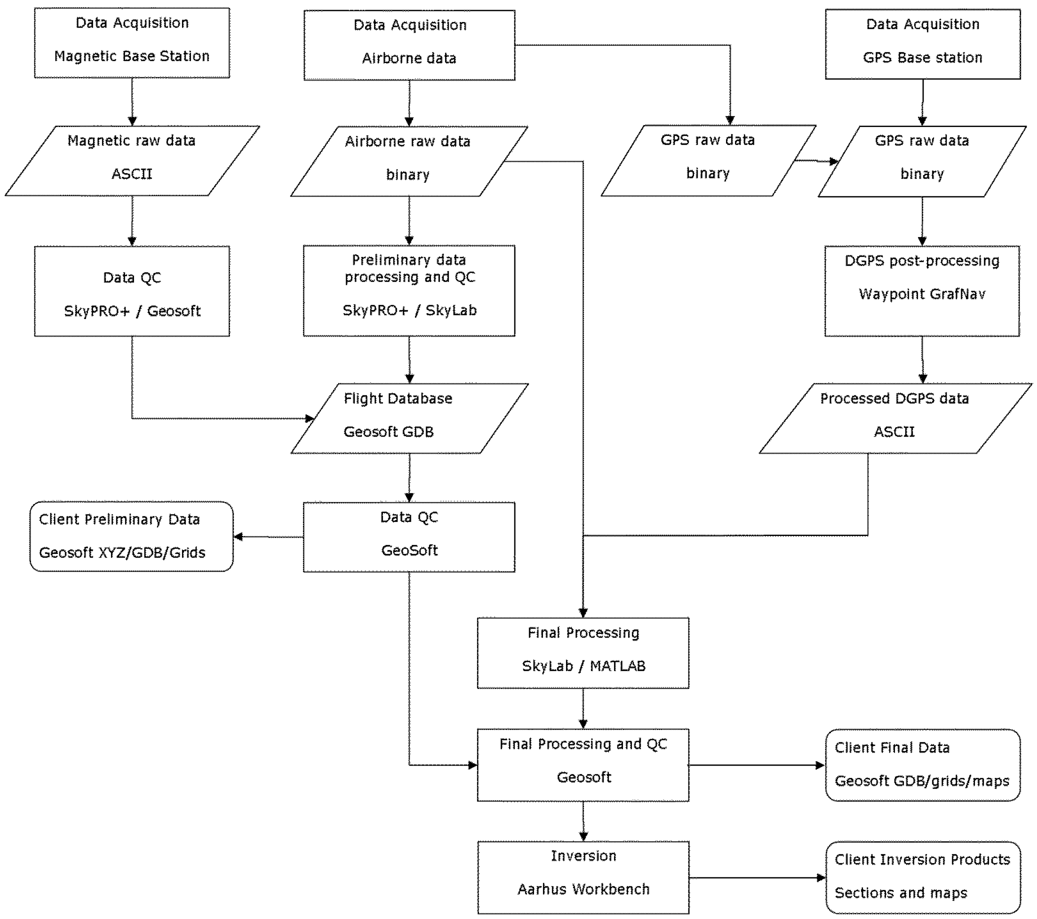
The system is equipped with two devices for backup. Data is guaranteed to be supplied from one device and will in most cases be supplied from both devices. In the case that one device fails it will be replaced as fast as possible.

Number of units installed	2
Model	Custom-designed Bjerre Technology inclination sensors to measure altitude of the carrier frame
Measurements	Data is transmitted digitally to the receiver electronics with no time lag
Orientation	Angle carrier frame in-flight direction (X) and perpendicular to the flight direction (Y)
Rep. rate	2 Hz
Resolution	0.1 degree
Accuracy	Better than 1 degree
Operating temperature	-20°C to +85°C

Appendix A Data Processing and Deliverables

A.1 Data workflow

The figure below shows the processing workflow for EM and magnetic data.



EM data management, QA/QC and processing workflow

Final processing of the EM data is implemented in proprietary software and Geosoft's Oasis Montaj software for processing of airborne geophysical data.

The inversion of the TDEM data will be based on Aarhus Workbench, developed by Aarhus Geophysics and Aarhus University. The 1D interpretation technique provides the optimal view of the subsurface by its representation of layering (if layers are dipping 30 degrees or less). When using the robust and documented 1D inversion scheme , a valuable "by - product" is a determination of how well the resistivities are resolved and how well the model response fits the actual measured data.

1. Field processing:
    a. The raw data are processed in proprietary software (SkyLab);
    b. Raw preliminary EM data (not PFC corrected) in Workbench file format will be provided;
    c. Daily data QC is performed in the office and field processing center.
    d. Within 24 hours , preliminary EM data PFC corrected in Workbench file format will be provided ; and
    e. Within 36 hours, LCI-inversion in Aarhus Workbench are delivered.
2. Final processing:
    a. Post processing of DGPS data;
    b. Raw EM data are normalized with the effective area of Rx -coil and the transmitter moment;
    c. Power line noise intensity (60Hz) is extracted; and
    d. Filtered data are processed in GeoSoft and a final project master database (GeoSoft) comprising EM and magnetic data is produced.
3. SCI-inversion in the Aarhus Workbench:
    a. The final processed and decoupled data are input into the Aarhus Workbench; and
    b. Inverted resistivity models are plotted on resistivity sections and are delivered as Geosoft Databases.

Magnetic data management, QA/QC and processing workflow

Final processing of the magnetic data involves the application of traditional corrections to compensate for diurnal variation, lag, heading effects , and levelling prior to gridding. Processes applied to improve the gridding include micro-levelling and application of higher order filter operators.

Advanced full processing of magnetic data is implemented in proprietary SkyLab software and Geosoft's Oasis Montaj software and its extensions for processing of Airborne Geophysical Data as follows:

1. Processing of static magnetic data acquired on magnetic base station-
    a. Filtering;
    b. IGRF correction;
    c. Calculation of diurnal variations; and
    d. Calculation of QC parameters.
2. Processing of airborne magnetic data-
    a. Filtering;
    b. Standard corrections to compensate the diurnal variation, lag and heading effect;
    c. IGRF correction;
    d. Statistical leveling using control (tie) lines;
    e. advanced leveling (care-full leveling and micro leveling)
    f. Gridding;
    g. Production of standard magnetic maps; and
    h. Delivery of raw, corrected, and leveled data will provided.

A.2 Preliminary field data

Preliminary raw field data (not PFC corrected) in Workbench format (*.skb) will be provided to the on-site representative at the end of each production day. Raw Field data

(PFC corrected) will be provided to the on-site representative within 24 hours, provided that sufficient internet reception is available to the NAH crew. The following preliminary LCI-inversion will be provided within 36 hours of acquisition to the Contract Representative-

- Raw electromagnetic data;
- Raw GPS data;
- Raw laser-altimeter data;
- Raw inclinometer data; and
- Related quality assurance and quality control documentation and records.

During the survey the recorded data will be carefully evaluated for QA/QC purposes and to ensure complete data coverage and high quality output. Geosoft as well as in-house software will be used to evaluate the data. This QA/QC procedure will be performed daily by the NAH crew.

A.3 Final deliverables

This section describes the standard deliverables for data included in the survey.

Digital data

Digital data for each survey block will be delivered in Geosoft database (GDB) or XYZ format. Digital grids will be delivered in Geosoft grid format (GRD) or other standard grid format defined by XRI. Formats should be agreed before the survey begins. All final products will be delivered in digital format (FTP site).

EM and magnetic data

Data available for download in Geosoft with appropriate headers will include the processed flight line data. A header describing each of the channels and data will be included. In addition, all data that has been corrected and processed will be delivered in a format that can be input into Aarhus Workbench. Each record will contain the following fields for EM and magnetic data:

Channel Name	Description	Unit
Fid	Unique fiducial number. Fid with the value of 0.0 is equal to midnight on the date of YYYY/MM/DD	Seconds
Line	Line number	LLLLLL
Flight	Name of flight	yyyymmdd.ff
DateTime	DateTime format	Decimal days
Date	Date	yyyymmdd
Time	Time	HH:MM:SS.SSS
AngleX	Angle in flight direction	Degrees
AngleY	Angle perpendicular to flight direction	Degrees

Channel Name	Description	Unit
Height	Filtered height – terrain clearance	Meter
Lon	Longitude, WGS84	Decimal degrees
Lat	Latitude, WGS84	Decimal degrees
E	Easting, defined projection	Meter
N	Northing, defined projection	Meter
DEM	Digital Elevation Model	Meters above mean sea level
Alt	DGPS altitude	Meters above mean sea level
GdSpeed	Ground speed	[km/h]
Curr_1	Current, high moment	Amps
Curr_2	Current, low moment	Amps
LM_Z	Normalized LM Z-coil value in a Geosoft array channel	pV/(m4*A)
HM_Z	Normalized HM Z-coil value in a Geosoft array channel	pV/(m4*A)
LM_X	Normalized LM X-coil value in a Geosoft array channel	pV/(m4*A)
HM_X	Normalized LM X-coil value in a Geosoft array channel	pV/(m4*A)
PLNI	Power Line Noise Intensity	-
IGRF	Calculated IGRF- total magnetic intensity	nT
Inc	Calculated IGRF- magnetic inclination	Degrees
Dec	Calculated IGRF- magnetic declination	Degrees
Bmag	Raw TMI for ground magnetic base	nT
Diurnal	Diurnal variation– magnetic base station data	nT
Mag_raw	Raw magnetic data – total magnetic intensity – despiked	nT
Mag_fil	Filtered raw magnetic data - TMI	nT
Mag_cor	Residual magnetic field - corrected for diurnal, lag, heading, and IGRF	nT
RMF	Residual magnetic field – IGRF removed - final corrected and levelled magnetic data	nT
TMI	Total magnetic intensity – final corrected and levelled magnetic data; IGRF recalculated.	nT

Digital maps

Survey data

- Digital Elevation Model
- Flight path

Interpretation and 3D Framework

The Aarhus Geophysics Workbench, specifically designed to process SkyTEM data, combined with XRI-developed software, will be used for the processing and inversion of the AEM data. The software is specifically suited for editing AEM data and removing couplings to power lines and pipelines. Spatially constrained inversions are conducted on the processed and decoupled data. Spatially constrained inversions utilize linear regularization from adjacent data points within the 1-D kernel function. Integration of borehole electrical data is typically done in areas where borehole data is coincident with the AEM data. The inversions are then combined into a 3-D electrical resistivity earth model of the area.

The AEM resistivity model combined with ground data will be used to reveal the character of the deposits across the project area with a level of three-dimensional detail that would be unobtainable with the limited ground access and the current inventory of borehole information. The interpretive imagery, which is inverted and derived from the AEM data, will illustrate contrasts between electrically conductive materials (clay and silt) and more electrically resistive sediments (sands and gravels) which correlate to the hydrological properties of clays and silts versus sands and gravels. The geologic descriptions from available borehole logs across the area are used as the base ground-truth. Interpretations are then provided as GIS and Google Earth files.

Final report

A report describing the acquisition, processing, and interpretation of the geophysical data collected will be delivered within six weeks of the completed survey. The final report will be delivered in digital PDF format and will include:

- A description and diary of survey operations and processing;
- List of the personnel employed in the survey and processing;
- Details of the instrumentation employed;
- A summary of survey statistics and QC parameters;
- A summary of the results of checks and calibrations;
- A full description of data compilation and processing methods applied;
- A list of maps and other final products; and
- A full description of digital data formats.

Other final deliverables

- Related quality assurance and quality control documentation and records.
- Flight path video showing the flight paths taken during the survey.

Digital data

Raw data in SKB and SPS-file (SkyTEM's proprietary format) and geometry file for Workbench (Aarhus Geophysics software product).

Appendix B Project Management and Personnel

NAH will provide flight planning and preparation of flight line maps, all qualified technical personnel to manage and complete the survey, suppl y of all technical equipment and spares, processing, interpretation and delivery of TDEM data on a daily basis. NAH will provide written status on a schedule to be discussed. These reports will provide a general summary of the project's progress highlighting:

- Deliverables achieved;
- Deliverables remaining, progress and expected delivery; and
- Issues and concerns affecting specific deliverables and the project schedule, or any other aspect of the project.

NAH will develop the Survey Plan and the Manageme nt Plan and ensure that all safety requirements relating to civil aviation will be adhered to. Special care will be taken to ensure that all applicable Aviation Regulations (Federal or otherwise) will be respected. NAH will also establish the bases of operation and the field data processing facility.

NAH survey staff will include a pilot, mechanic, field manager, geophysicist, and a field technician. The total surv ey crew will consist of five (5) people.

B.1 Project management

The on -site Field Manager will be responsible for the overall success of the project and ensure delivery of all required products is on time and within specifications. He/She will oversee the field operations and data acquisition as well as coordinate and manage each days sorties and to ensure that all data is collected as efficiently and safely as possible. The Field Manager will also:

- Communicate with the Sunnyside Gold Corporation Contract Representative on a daily or as-required basis ; and
- Ensure specifications are being met and adhered to.

Appendix C QA/QC

NAH ensures quality control of the project by using advanced data acquisition and data processing (in field and office) techniques. These include:

Data acquisition:

- Advanced auxiliary and electronic navigation;
- Elimination of bias and need for regular calibrations;
- "Next Day" processing available; and
- Experienced field and office geophysical staff.

Data processing:

- Custom processing and interpretation; and
- Advanced Imaging Techniques.

NAH will focus on the highest level of quality during data acquisition and for all data products delivered. We will ensure that the survey is performed within the appropriate airborne geophysical industry best practice and standards. We strive to take advantage of the latest technologies and techniques in the airborne geophysical industry and, where appropriate, combine with the NAH Surveys QA/QC Plan and Manual.

NAH will be responsible for adjustment and calibration of geophysical equipment, ensure operation meets specifications, and will maintain quality control of processing and interpretational procedures applied to the data.

Appendix D Health, Safety, Environment and Community

D.1 NAH's HSE policy statement

NAH is continuously working on improving our Health, Safety and Environment management in order to maintain a safe and healthy work environment and an environmental friendly business performance. We strive to reach the highest global standard of HSE management within our business.

The safety of our employees, the public and our operations is of primary importance. We actively support the efforts of all personnel to strive for the goal of a safe and healthful work environment. To achieve this goal, we outline and implement specific standards and procedures at our offices and other premises and at field locations from which we operate.

Our office and crew managers at all locations are responsible for administering the program and are held accountable for its success. Our employees are also held accountable for following the rules and procedures set forth by NAH and for contributing to our overall achievement.

The elimination of accidents and losses due to accidents is an important responsibility for all of us. This responsibility is being accepted and implemented with the same commitment to excellence as are our other business objectives relating to customer satisfaction, sales and operating costs.

NAH is committed to undertake all work activities with due regard for the environment and to meet applicable legal and other requirements and, where possible, go beyond to achieve corporate targets of Zero Harm to the Environment. This includes all facilities and field locations. Our airborne field operations do not harm or disturb nature and we do our utmost not to disturb wildlife. It is a corporate policy never to leave waste and to keep fuelling and similar operations under strict control in order to prevent spillage.

D.2 Objectives

It is NAH's objective to:

- Maintain high standards for health, safety and the protection of the environment at our offices and other premises and at field locations from which we operate;
- Ensure that these standards are incorporated into the design and planning of all aspects of our operations;
- Communicate these standards to all employees and subcontractors;
- Enable our employees to work in a safe manner by giving them the necessary information, instruction and training.
- It is incumbent upon Management to strive for the safe operations of our survey platforms and facilities and to promote an effective and proper understanding with all employees and subcontractors on matters which relate to health, safety and the environment.
- All NAH employees are required and encouraged to cooperate with Management on all matters relating to health, safety and the environment and to take reasonable care while at work to ensure the health and safety of themselves and others who may be affected by their actions.

D.3 HSE management system

IAGSA compliance

NAH is an active member of the International Airborne Geophysics Safety Association (IAGSA) and, as such, adheres to the Recommended Practices and Guidelines of IAGSA. The NAH HSE Management system has not yet reached its full extent and is constantly being updated as required. Our primary focus has been on the development of a safe system of work for our field operations based on a logical, well-thought out approach that includes components which identify and document the hazards, safety precautions, and safe working practices associated with our field activities. The system ensures that our field operations are compliant with the IAGSA Safety Manual. The logical approach of our system embraces four steps:

- Identify the hazards and assess the task ;
- Define safe methods and operational procedures;
- Implement and train people ; and
- Monitor the system.

Risk Assessment

An important component within NAH's HSE Management system is risk assessment. Our safe system of work and the planning of fieldwork is based upon four types of risk assessments:

- Design Risk Assessment

  Must be performed when designing, developing or modifying the geophysical field operation equipment (survey system).

- General Task Risk Assessment

  Must be performed prior to the planning of standard operational procedures.

- Survey Risk Assessment

  Also referred to as a Job Safety Analysis. This type of risk assessment must be performed when planning specific survey projects.

  This type of risk assessment must include the ground field work of a given survey operation if specific known site-conditions and/or customer requirements create circumstances that causes the planned work to differ from standard operations.

- On-site Risk Assessment

  Must be performed when having hazardous one-off assignments performed by NAH personnel or by other personnel working under the instruction of NAH globally. This type of risk assessment must also be performed when a planned field work task, for whatever reason, differs from the standard procedure.

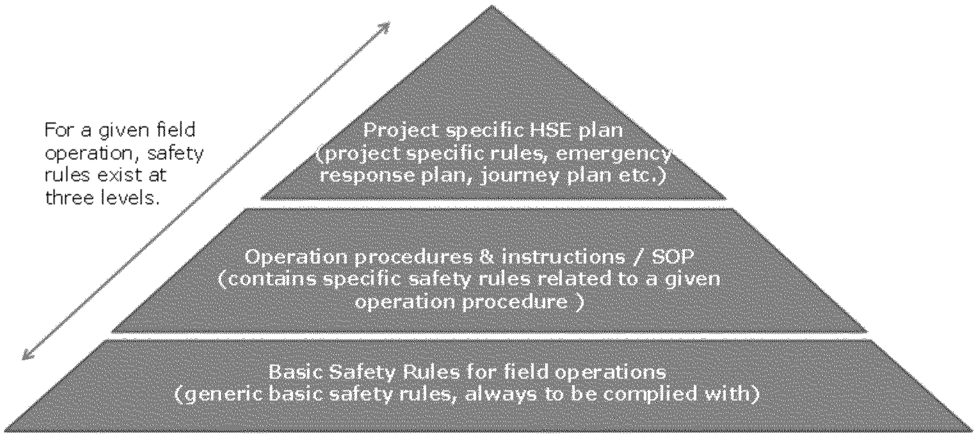
The risk assessments form the basis for identification of safety measures, the need for education & training, for use of personal safety equipment, and for monitoring and inspection.

Helicopters

Safe System of Work

The management of risks (safety measures) is described in a set of procedures, instructions, rules, requirements and gu idelines, with the purpose to act as a reference and supplement to our operational instructions, procedures and manuals. Our safe system of work consists of the following three levels of documents:

- The NAH Basic Safety Rules for field work;
- Operational procedures and work instructions (SOP);
- Approved written procedures (if necessary);
- Project specific HSE Plans; and
- Safety Method Statements (Journey management Plan) which usually is the responsibility of the aviation operator .



In combination with this system, our project management and sub-contractor management form compliance with the IAGSA Safety Manual. Our project management and sub -contractor management is currently being extended and improved in order to fully document this compliance.

Training of employees

A core component within NAH HSE Management system is the training of employees. To ensure that our safe system of work is being communicated properly, understood by employees and applied correctly we do our utmost to:

- Ensure that supervisors know they should implement and maintain the safe system of work;
- Ensure adequate training is carried out for employees and supervisors; and
- Stress the need to avoid short-cuts and to stop work when faced with an unexpected problem until a safe solution can be found.

Besides a set of requirements for the technical education/skills of our field personnel, we have implemented requirements for basic safety training. Only persons who meet these basic safety training requirements and who have received a site intr oduction are allowed to work on NAH's operation sites. The basic safety training requirements for persons working on the NAH field operations includes:

- Responsibilities on site
- Basic First Aid & CPR
- Basic Fire Fighting
- The use of personal protective equipment
- Working around a helicopter
- Radio communication
- Hand signaling
- Electricity safety precautions
- Lifting techniques
- Prevention of trip & fall accidents
- Knot binding
- Hooking training

Besides this, the field personnel are trained in how to perform a risk assessment of an unplanned-task (On-site Risk Assessment).

NAH requests from the sub-contractors, whom we engage in field operations, that they ensure a high level of training as well. Personnel from labor-providing sub-contractors must meet the training requirements as the internal NAH personnel as described above and aircraft operators are required to comply with the training guidelines outlined in the IAGSA Safety Manual.

Monitoring

The NAH HSE Manager is responsible for advising our Managing Director, respective Departmental and Field Managers and all other NAH personnel on matters relating to health, safety and the protection of the environment. The HSE Manager assists NAH Field Management in establishing the necessary HSE standards, procedures and training required for working in the field.

The HSE Manager reviews reports on accidents, incidents and near misses and ensures that a full investigation is carried out and appropriate remedial action implemented. The HSE Manager also conducts or, where appropriate, engages suitably qualified independent consultants to conduct independent health, safety, and environmental inspections and audits of NAH field operations and prepare the necessary reports for management review.

D.4 Safety management in the field

Project Manager

The NAH Project Manager is responsible for ensuring that all field personnel, for whom he/she is responsible, know that they are required to adhere at all times to NAH's HSE Management System and all supporting standards and procedures, and that employees exposed to hazards know the described safety precautions and are trained for performing the work in a safe way.

The Project Manager furthermore ensures that specific responsibilities for health, safety and protection of the environment are properly defined and delegated, and that all NAH facilities utilized by his subordinates and all associated equipment are of such a design and construction and are so maintained as to minimize the risk to health, safety and the environment.

It is also the responsibility of the Project Manager to ensure the preparation of the site specific HSE plan and as such the preparation of a Job Safety Analysis and for the establishment of a site specific emergency response plan and flight following procedure. This requires close cooperation with the aviation operator and communication with people living in the survey area, local authorities and governmental departments and agencies, as well as Sunnyside Gold Corporation, in advance of all survey flying.

Field Manager

It is the responsibility of the Field Manager, at the field site, to ensure that a daily safety session (Job Safety Briefing) is being conducted on site before work commences. The Field Manager should make arrangements for all NAH personnel and/or contractors, under their control, to be thoroughly briefed on the known hazards associated with each job, prior to commencement of the work so that they fully understand what is required of them, together with any precautions that need to be taken. This would be completed with information provided by the aircraft operator. Reports from these meetings must be kept.

It is furthermore the responsibility of the Field Manager to ensure that risk assessments are being conducted whenever a situation causes the work to be performed in an un-planned way (non-standard operation) and that all changes from standard operations immediately are being thoroughly communicated to all involved personnel (tool-box talks). Reports from tool-box talks must be kept.

Employees

It is the statutory responsibility of all NAH field personnel to take reasonable care of the health and safety of themselves and of other persons who may be affected by their acts or omissions at work. All personnel must familiarize themselves and comply with the provisions of our safe system of work and any specific rules or procedures relating to health and safety at work and environmental protection.

Employees are obligated to promptly report any near misses, accidents, incidents or dangerous occurrences to the Field Manager and cooperate fully in any investigation and to cooperate with NAH management on matters relating to health, safety and the protection of the environment.

Field personnel working on a NAH field operation must furthermore ensure that any equipment including vehicles issued to them, or for which they may be responsible, is correctly used and properly maintained.

Aircraft Operator

The aircraft are maintained and operated by NAH/Southern Helicopter Inc. These Aircraft are required to comply with the NAH HSE requirement and their safe system of work is to be approved by NAH.

On a survey operation, the aviation operator works under the general project management responsibility of NAH and is requested to provide all relevant documentation related to the aircraft related activities for approval by NAH prior to project kick off, e.g., Risk Assessments; Journey Plan; Flight Following Plan; Emergency Response Plan; Procedure for aircraft maintenance; Training documentation; Accidents & Incidents Reporting.

D.5 Accidents & incidents

NAH always complies with the accident & incident reporting requirements set out by national and/or local legislative authorities in the geographically areas in which we operate. NAH has never had any accidents that caused injuries to persons or environment, but we encourage our employees to report all work related incidents and we always conduct a full investigation in order to establish proper safety precautions. The most hazardous part of our survey operations is rela ted to aviation and as a part of our sub - contractor management we require accident & incident statistic from our aviation business partners in order to evaluate their safety management.

D.6 Equipment

The SkyTEM system has been routinely flown on environmental, engineering, mineral, and oil and gas exploration projects around the world. The carrier frame, towed beneath a helicopter, has been optimized to be rigid and to reduce noise from vibrations and has been a reliable and robust platform for the transmitter and receivers.

SkyTEM bird-towing technology is based on and built from the best and most substantial materials available on the market in order to avoid any unplanned or accidental mechanical release of the system. The system i s designed so that all parts are connected with wires and lines to avoid the possibility of any parts falling from the frame.

Connection to Helicopter: The upper end of the main tow cable is anchored to helicopter cargo hook with a high-quality stainless steel shackle certified to carry a load of 5,500 kg. Redundancy is built in to help ensure safety and a double chain of ropes is employed on the main tow cable.

The towing system segments and components are inspected and mechanically tested on a regularly scheduled basis. NAH field technicians inspect the tow system segments and components for possible damage or defects before each flight.

D.7 Environment

Environmental requirements will be considered during planning and will always be done in conjunction with the aircraft operator.

D.8 Corporate social responsibility

NAH strives to become a reliable and trusted business partner through enhanced dialogue-oriented involvement with customers, stakeholders , and employees and we always enter into honest and productive dialogue with stakeholders to achieve shared solutions.

Appendix E Corporate Experience and Past Performance

Broken Hill Managed Aquifer Recharge

In April 2013, XRI processed and interpreted nuclear magnetic resonance (NMR) data collected as part of a multi-year study by Geoscience Australia (GA) to evaluate the feasibility of managed aquifer recharge in the Menindee Lakes area of New South Wales for water supply for the municipality of Broken Hills. Menindee Lakes is connected to the Darling River and would use high flows in the Darling River as a source of water for the recharge. The NMR data acquired in 2013 provided detailed hydrogeological data that were used to calibrate historical NMR logging data collected in 2011 by GA. The data were compared and integrated into a 20,500 line-mile AEM survey that was collected in 2009 (Lawrie and others, 2012; Lawrie and others, 2013; Tan and others, 2013; Tan and others, 2014; Lawrie and others, 2015).

Pagan Island – Commonwealth of Northern Mariana Islands

In July of 2013, a joint XRI Geophysics and US Army Engineer Research and Development Center geophysical exploration program took place on Pagan Island in the Commonwealth of the Northern Mariana Islands. XRI acquired 500 line-miles of airborne magnetics in addition to ground based seismic, dc resistivity, and time-domain electromagnetics. The geophysical surveys were conducted to characterize the active volcano for hazards and to develop a preliminary groundwater framework for the island. The results of these airborne and ground-based investigations provided a magnetic total field map of the island, a magnetic susceptibility earth model, a map of Curie Depths under Pagan Island, the locations of freshwater reserves as well as freshwater/saltwater interfaces in the investigated areas (Exploration Resources International, 2014; Asch and others, 2014; Irons and others, 2015).

Osage Nation, Oklahoma

In September 2013, XRI and NAH completed an AEM survey of Osage County, OK. This investigation was conducted to assist in the delineation of saline groundwater beneath the county in support of ongoing water resources investigations for the Osage Nation. Data from the survey's findings were used to improve the conceptualization of the groundwater flow system and support dataset inputs for a groundwater model of the region. The AEM survey totaled 1,550 line-miles across Osage County with variable flight-line spacing. In addition to the airborne survey, ground-based time-domain electromagnetic data were acquired at four sounding locations for AEM data quality assurance (Pierce and Abraham, 2014).

Lower Elkhorn Natural Resources District, Nebraska Area

Beginning in August 2013, XRI conducted an AEM survey and built a hydrogeological framework of the area near the towns of Clarkson and Howells, NE for the Lower Elkhorn Natural Resources District (LENRD). The purpose of the study was to address the water resource concerns of the district in the area between Clarkson and Howells, where record groundwater declines were experienced in 2012, prompting the LENRD to seek additional information on the groundwater availability of the area. Results of this study indicated the AEM system had depths of penetration in excess of 900 ft with detailed resolution of the subsurface. In addition to the airborne survey, ground-based time-domain electromagnetic data were acquired at four sounding locations for AEM data quality assurance. The study also confirmed the presence of limited aquifer materials (sands and

gravels) within the Quaternary glacial deposits. An added benefit of the study was the ability to map the contact of the Quaternary system and the underlying Cretaceous bedrock, which could provide an additional source of groundwater for Clarkson and Howells (Abraham and others, 2013; Abraham and others, 2014).

Madison, Nebraska

Beginning in August 2013, XRI conducted an AEM survey and assembled a hydrogeological framework of the area surrounding the town of Madison, NE. The purpose of the study was to address the water resource concerns of the town of Madison, NE. In addition to the airborne survey, ground-based time-domain electromagnetic data were acquired at four sounding locations for AEM data quality assurance. Results from the 47 line-mile survey indicated the presence and extent of aquifer materials (sands and gravels) and aquitard materials (silts, clays) within the Quaternary glacial deposits beneath the survey area, and provided potential target areas for exploration and development of a new municipal well field (Carney and others, 2014).

Lower Platte South Natural Resources District, Nebraska

In August 2013, XRI conducted an AEM survey totaling 827 line-miles over three separate flight blocks in southern Butler and Saunders Counties, NE which resulted in a hydrogeological framework of the area between the towns of Dwight, Brainard, and Valparaiso. The purpose of the study was to assist the Lower Platte South Natural Resources District (LPSNRD) in groundwater management planning in the northwest part of the district. In addition to the airborne survey, ground-based time-domain electromagnetic data were acquired at four sounding locations for AEM data quality assurance. Results indicated the presence of aquifer materials in paleovalleys, aquitard thickness, potential groundwater recharge areas, connectivity of surface water and groundwater, and Cretaceous bedrock topography (Carney and others, 2014).

Permian Basin, West Texas

In February and July 2014, XRI and NAH acquired a cumulative total of over 4,664 line-miles of AEM survey data over several areas of the southern Permian Basin in West Texas for a partnering water supply company. The objective of these flights was to characterize brackish aquifer conditions in Cretaceous and Triassic strata on the southern edge of the Permian Basin to provide water supply support for the energy industry. At some locations, ground-based dc resistivity, audio-magnetotelluric, time-domain electromagnetic, and seismic surveys were conducted to ensure the quality of the AEM data and to provide further insight into delineating the contacts between the underlying strata. Borehole geophysical data was also collected and integrated into the interpretations (Abraham and others, 2015).

Lower Elkhorn Natural Resources District, Nebraska

In October 2014, XRI and NAH completed an AEM survey and hydrogeologic framework of approximately the northwestern half the LENRD centered around the city of Norfolk, NE with a flight-line-grid spacing of 3-5 miles. The purpose of this investigation was to provide an overall general framework of the aquifer resources beneath this portion of the district, and to provide insight into appropriate flight-line spacing required to provide optimal information regarding hydrogeologic conditions. Results indicated the presence and extent of materials comprising the principal Quaternary aquifer in the region as well as aquitard materials present across the district, as well as the hydrogeologic character of the subsurface in proximity to the major surface water drainages crossing the district. The airborne system implemented in this project also allowed for characterization of the entire

Cretaceous bedrock sequence beneath the district and the contact between the Cretaceous strata and the Paleozoic system (Exploration Resources International, 2015).

Missouri River Riverbank Filtration System, North Dakota

In October 2014, XRI and NAH completed an AEM survey along the Missouri River between Bismarck, ND and Garrison Dam on Lake Sakakawea, in support of streambed sediment characterization for sighting a riverbank filtration system planned by the North Dakota State Water Commission. This survey, which covered over 700 line-miles along the Missouri River corridor, provided detailed profiles of the character of the sediments beneath the Missouri River and the adjacent alluvial plain that sit atop Tertiary bedrock strata. XRI also conducted a ground-based resistivity survey of particular areas of interest where a partnering contractor had drilled a series of geologic test holes. This survey, which covered a distance of approximately 4.5 miles, provided greater understanding of the streambed material thickness between the test holes (Exploration Resources International, 2014).

Fort Peck Indian Reservation, Montana

Also in October 2014, NAH and XRI completed a survey over the Fort Peck Reservation in northeastern Montana, which included the East Poplar Oil Field. This survey collected AEM and magnetic data in support of an ongoing subsurface contaminate plume study. A total of 826 line-miles were flown for this survey (Exploration Resources International, 2014).

Eastern Nebraska Water Resources Assessment

Also in October 2014, XRI and NAH completed the first phase of an AEM reconnaissance survey over the northern half of the Eastern Nebraska Water Resources Assessment (ENWRA) project area, which covered nearly 900 line-miles within an area between the Platte River valley in the Columbus-Fremont area northward to the Nebraska-South Dakota border. This first phase of the survey was conducted with a grid spacing of 10-20 miles across the Lewis and Clark, Lower Elkhorn, and Papio-Missouri River Natural Resources Districts. In April 2015, the second phase of the AEM reconnaissance survey was completed across the southern half of the ENWRA project area, which covered 685 line-miles over an area between the Platte River valley in the Columbus-Fremont area southward to the Nebraska-Kansas border. This survey included the southern extent of the Papio-Missouri River, Lower Platte North, Lower Platte South, and Nemaha Natural Resources Districts, as well as small sections of the Upper Big Blue and Lower Big Blue Natural Resources Districts. These surveys revealed the extent and character of Quaternary aquifer and non-aquifer materials alike across an area the size of Connecticut and Rhode Island combined, as well as the trends in thickness and structure of the underlying Cretaceous and Paleozoic systems. The hydrogeologic frameworks resulting from these surveys provide greater understanding of the subsurface conditions across district-wide areas, and can assist water resources managers in locating where more detailed, smaller-scale AEM surveys can be conducted in support of water supply and management needs.

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NA Helicopters

Appendix F Resumes of Key Personnel